

WHAT IS CLAIMED IS:

1. A rotary electric machine comprising:

a stator core having a plurality of slots; and

a multi-phase winding including a plurality of phase

5 windings wound in the slots at predetermined angular intervals,

wherein one end of one of the phase windings is connected to a middle point other than both ends of another one of the phase windings in a cyclic manner among the phase windings.

10 2. The rotary electric machine according to Claim 1,

wherein:

the multi-phase winding has a plurality of electric conductor segments connected in series; and

each of the slots receives therein generally a same 15 number of the conductor segments.

3. The rotary electric machine according to Claim 1,

wherein the multi-phase winding includes two sets of three-phase windings having a phase difference of $\pi/6$ in an electric angle

20 from each other.

4. The rotary electric machine according to Claim 2,

wherein the electric conductor segments are connected together through respective end portions.

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5.. The rotary electric machine according to Claim 4,

wherein the electric conductor segments each has a rectangular

sectional shape.

6. The rotary electric machine according to Claim 5,
wherein the electric conductor segments each has a substantially
5 same sectional shape.

7. The rotary electric machine according to Claim 1,
further comprising:

10 a rectifier device for rectifying voltages induced in
the multi-phase winding,

wherein another end of each of the phase windings is
connected to the rectifier device.

15 8. A rotary electric machine comprising:

a multi-phase winding including a plurality of phase
windings, one end of each of the phase windings is connected to
a mid-point of another of the phase windings to form a Δ -
connection of the phase windings; and

20 a rectifier device connected to another end of each
of the phase windings.

25 9. The rotary electric machine according to claim 8,
further comprising:

a stator core having a plurality of slots for receiving
the multi-phase windings therein,

wherein each of the phase windings includes a plurality
of electric conductor segments connected in series with, and

wherein a number of the electric conductor segments received in each of the slots is fixed to an integer number.

10. A rotary electric machine comprising:

5 a stator core having a plurality of slots;
a multi-phase winding including a plurality of phase windings received in the slots, a number of turns of each of the phase windings in each of the slots being fixed to an integer number; and

10 a rectifier device connected to the phase windings,
wherein the phase windings are connected to one another
in a predetermined form of a Y-connection and a Δ-connection to provide an output which is intermediate between two outputs which the rectifier device provides when the phase windings are connected in the Y-connection and the number of turns in each slot is fixed to the integer number and another integer number less than the integer number by one.